E. rostellata[1] Torr. "Very common, on the salt marshes just at edge of upland, and also bordering the little island-like elevations of higher land on the marshes, in Salisbury, Newbury and Newburyport" (*R. Dodge*, Aug. 20, 1890); Medford (*Wm. Boott*, Aug. 16, 1865; *F. S. Collins*, June 19, 1887); Malden (*Wm. Boott*, July 19, 1853).

E. tenuis (Willd.) Schultes. Moist places; unrecorded from extreme southeastern part of district, but probably abundant throughout.

E. tuberculosa (Michx.) R. & S. Wet sandy soil; Gloucester, Manchester, Danvers, Tewksbury, Wilmington, Carlisle, Cambridge, Quincy, Milton, Weymouth, Norfolk; Bedford (*C. W. Swan*, according to Dame & Collins, Fl. Middlesex Co., 112, 1888).

STENOPHYLLUS.

S. capillaris (L.) Britton. Dry sandy soil, very common.

FIMBRISTYLIS.

F. Frankii Steud. Wet sandy and muddy shores. Apparently common, but not reported from southeastern portion of the district. In the Boston Soc. Nat. Hist. herbarium is a specimen collected by Francis Boott in 1822. On the label is the following statement: "Picked by Dr. Boott and given to me (B. D. Greene) 22d Nov., 1822."

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THE VARIETIES OF RIBES HIRTELLUM.

M. L. Fernald.

As recently pointed out by Coville and Britton,[2] the name *Ribes hirtellum* Michx. (or *Grossularia hirtella* (Michx.) Spach, the name used by those who see a sharp line of demarcation between the gooseberries and the currants) must be taken up for our common smooth-

[1] There is a sheet of *E. Robbinsii* in the Wellesley Coll. Herb. collected at Hammond's Pond, Newton, Sept. 8, 1854, by Wm. Boott. On the same sheet is mounted a specimen of *E. rostellata*, both species bearing the same label. There is probably a mixing of specimens here.

[2] N. A. Fl. xxii. pt. 3, 223, 225 (1908).

fruited gooseberry of the Northeast. *R. oxyacanthoides* L., with which our gooseberry has been confused, is, as shown by the above authors, a much more bristly shrub of the interior — from Hudson Bay and Lake Superior to the Rocky Mountains — with the stamens about equaling the petals and the leaves usually somewhat glandular, to which characters may be added the glandular-ciliate bracts. *R. hirtellum*, the common eastern shrub, has the fruiting canes almost never bristly above, the stamens distinctly exceeding the petals, and the leaf-surfaces and bracts without the glands which are characteristic of *R. oxyacanthoides*.

As shown in 1905,[1] the common eastern *Ribes hirtellum* (then confused with *R. oxyacanthoides*) has the leaves of the fruiting branches cuneate to cuneate-truncate at base and green and essentially glabrous or only slightly pilose along the nerves and margins beneath; while a more local extreme, *R. oxyacanthoides*, var. *calcicola* Fernald, at that time known only from highly calcareous habitats in eastern Quebec and from Michigan, but subsequently seen from Monhegan Island, Maine (*Miss M. P. Cook*), has the lower and sometimes the upper leaf-surfaces, the petioles and the young twigs permanently and densely white-tomentose, and the calyces hirtellous. The var. *calcicola* thus stands to the smooth-leaved *R. hirtellum* in a relation apparently similar to that of the local *Grossularia klamathensis* Coville[2] to *Ribes inerme* Rydb. (*Grossularia inermis* Coville & Britton), the common northwestern representative of our *R. hirtellum*.[3]

[1] Fernald, Rhodora, vii. 153–155 (1905).

[2] Coville in Coville & Britton, N. A. Fl. l. c. 224 (1908).

[3] *Grossularia klamathensis* is distinguished in the key from *G. inermis* by its having "leaf-blades villous on both surfaces, not glandular; hypanthium and sepals usually hirsute on the outside; berry black," yet the type description states that the hypanthium is "sparingly villous [not hirsute] or glabrous," while the leaves of *G. inermis* are said to be "glabrous or. . . .sometimes pubescent and glandular"; i. e. in either species the leaves may be pubescent; in each they may be glandless; and the hypanthium in *G. klamathensis* may or may not be pubescent. Judging by the ranges assigned the gooseberries, *G. inermis* is the only member of this immediate group which occurs in New Mexico, yet the New Mexican sheets before the writer have the leaves quite pilose to villous upon both surfaces (a key character of *G. klamathensis* of Oregon and northern California), two of the sheets (*Fendler*, no. 253 and *Heller*, no. 3772) have the hypanthium hirsute (*G. klamathensis* is distinguished from *G. inermis* by its "hirsute," i. e. "villous or glabrous" hypanthium), and the Fendler plant has plumose trichomes upon the petioles, which the writer supposes to be what are intended in the description of the Oregonian *G. klamathensis* by the "petioles. . . .often fibrillate toward the base." The occurrence of these characters in the Rocky Mountain *G. inermis* as well as the fact that the fruit of the smoothish plant is sometimes said to be black (*Cusick* in Gray Herb.) points to the probability that *G. klamathensis* is hardly a true species but better treated as an extreme variant of *G. inermis*.

In their treatment of the gooseberries Coville & Britton not only consider *Ribes oxyacanthoides*, var. *calcicola*, a plant with densely white-tomentose leaves and petioles, as identical with the "glabrous or sparingly pubescent" *Grossularia hirtella*; but reduce outright *Ribes saxosum* Hook., a plant with cordate leaves, although separating the thus constituted *G. hirtella* from the western plants which have "leaf-blades truncate to somewhat cordate at the base" by the key-character, "leaf-blades wedge-shaped at the base, except on an occasional aberrant plant," and thus indicating a belief that the cordate-leaved extreme of the northeastern plant is only an occasional aberration. To those, however, who are familiar with the flora of Newfoundland and eastern Canada, it is well known that the extreme variation of *R. hirtellum* with cordate or subcordate leaves on the fruiting branches is a very characteristic plant of certain areas, forming extensive colonies (as at Crabb's Point, Bay of Islands, Newfoundland; on the slopes of Cap Barré, Percé or on some of the sea-cliffs of Tourelle and Bic, Quebec) where its abundance indicates that it is a real phase of *R. hirtellum*, superficially so like the western *R. inerme* that it has more than once been identified with it: by Coville in publishing his *R. oxyacanthoides saxosum* (Hook.), which was based in part upon Hooker's description of the eastern plant, in part upon the western *R. inerme*; and by Robinson & Fernald who, in the 7th edition of Gray's Manual, indicated the var. *saxosum* as extending to the Rocky Mountains.

A recent study of the group, brought about by the receipt of true *Ribes oxyacanthoides* from northern Michigan, shows that the cordate-leaved *R. saxosum* Hook. is unquestionably an extreme of *R. hirtellum*, but that it can be separated from the western *R. inerme* (which also has cordate or subcordate leaves) only by the closest scrutiny. In the eastern plant the leaves are rarely quite glabrous but are usually a little pilose on the nerves beneath or on the margins; in the western frequently quite glabrous or with minute pubescence distributed over both surfaces; in the eastern plant the petioles commonly bear some long plumose frequently gland-tipped trichomes; in the western plant such plumose trichomes are unusual, though sometimes well developed, but the petioles generally (but not always) bear numerous sessile or subsessile glands; in the eastern plant the bracts of the raceme are glandless, though often pilose-margined, but in the western they are ordinarily glandular-ciliate. Whether or not the western

R. inerme can be maintained as a distinct species, there is no question that *R. saxosum* is distinct from it in several fairly marked characters.

The two varieties of the eastern *Ribes hirtellum* should bear the following names.

Ribes hirtellum Michx., var. **calcicola** (Fernald) n. comb. *R. oxycanthoides*, var. *calcicola* Fernald, Rhodora, vii. 155 (1905).

R. hirtellum, var. **saxosum** (Hook.) n. comb. *R. saxosum* Hook. Fl. Bor.-Am. i. 231 (1834). *R. oxyacanthoides saxosum* (Hook.) Coville, Contr. U. S. Nat. Herb. iv. 100 (1893) as to name-bringing synonym.

Gray Herbarium.

Ornithological Observations on Cleistogamy.— If anyone whose winter rambles lead him along wet wood borders will take note of clumps of *Panicum clandestinum* he will find the upper sheaths split to shreds while still uninjured at the junction with the dry and yellow blade above. A few winters ago the cause of this was made known to the writer when watching a flock of chickadees near Takoma Park, a suburb of Washington, D. C. These animated balls of gray and black were having a feast on the big fat grains of the cleistogamous spikelets concealed in the sheaths. I have since found occasional clumps of *Panicum boscii* also with shredded upper sheaths. Evidently the chickadees knew of this character of *P. clandestinum* and profited by it before Linnaeus bestowed the name "clandestinum" on the species because of it.— Agnes Chase, Bureau of Plant Industry, Washington, D. C.

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